

## SKYFLOW DREDGING PUMPS



### HYDRAULIC DIVE SAND PUMP (EXCAVATOR-COMPATIBLE) MANUAL

**Features:**

1. **SKYFLOW-ODR** series hydraulic drive sand pump is another new produce we developed. It is mainly used as an excavator attachment taking place of grab bucket when there is too much water, mud and not pump sand, sludge mortar etc.



2. Its flow passage components is made of high-strength and wear-resistant alloy. It has large flow channel and is suitable for delivering pulp, coal slurry and sand etc. which contains relatively big solid particles.

**Working Principle:**

3. **SKYFLOW-ODR** hydraulic pump is a kind of new submersible sand pump driven by hydraulic system, which converts hydraulic energy into mechanical energy through motor. While working, the pump impeller rotates and stirs the slurry, so energy is transferred to the slurry and flow in one direction. In this way the slurry with solid particles is delivered.





4. **SKYFLOW-ODR** Series domestic high-speed gear motor is chosen to hydraulic motor, this motor adopts the axial and radial tracing compensation, narrow the high pressure area, reduce the radial force, so as to prolong the service life of product, also has the excellent character of advanced and reasonable structure, good performance, high efficiency and stable work, etc. Depending on the system requirement, it could be adopted by 32 ml, 40 ml or 50 ml displacement, the rated pressure of shall be at 25 MPA.



### Key Features:

1. An impellor is installed at the bottom of the pump; it can prevent big solid particles from clogging the pump, make the solid granules mixed with the liquid sufficiently, and make it easy to deal with.
2. The max diameter of the solid this pump can deal with is 50mm. solid density of the mixture can be up to 70%.

Note: Output changes due to different working condition, mediums, operation, discharge distance etc.

3. Wearing parts are made of hard chromium alloy.

### Structural Features:

1. This **SKYFLOW-ODR** comes with a stirring device which can stir the sediment at the bottom and take place of the traditional practices with water cannons.
2. The pump is mainly consist of pump volute, impeller, pump housing, guard, stir device, oil chamber seals, couplings hydraulic motors etc. Its flow passage components are made of hard chromium alloy to ensure a high service life.

3. The **SKYFLOW-ODR** is mainly installed on excavators and powered by its hydraulic power pack unit powered by Diesel engine which can also be used as the source power, so it can be transported from one working site to another freely despite the lack of electricity in remote areas.

**Main Applications:**

1. Dredging and desilting in the river, lake and port.
2. Extracting sand, gravel etc., harbor reclamation project
3. Draining liquid with solid materials, such as iron, tailings and slag etc.
4. Extracting slag, forging slag, sludge and other industrial waste.
5. Pump sand and gold mining etc.

Hydraulic pump is mainly used as excavator auxiliary attachment to take place of grab bucket when there is too much water, mud and not suitable for digging. With the pump we can realize efficient, high density extraction and long distance convey. It is widely used in beaches, farms, river excavation, dredging, drawing sand and coastal reclamation operation.

**Advantage of High Hydraulic Transmission:**

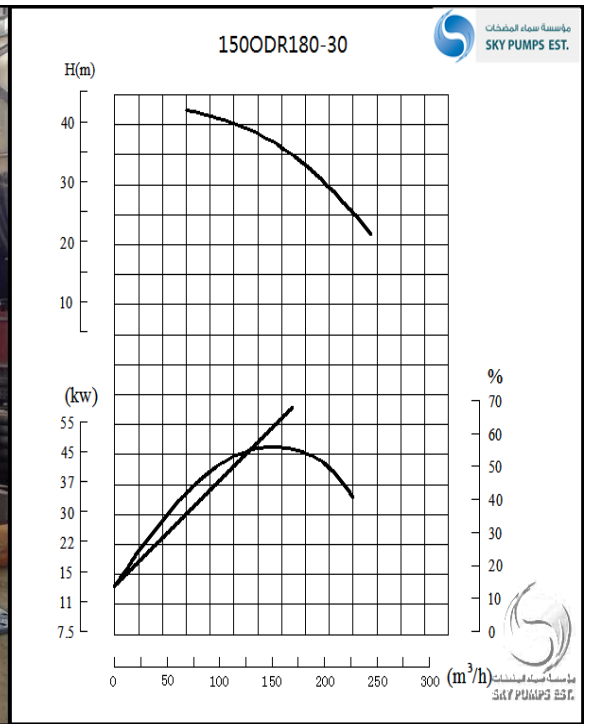
Compared with mechanical transmission and electric drive, hydraulic transmission has the following advantages:

1. Easy to realize stepless speed
2. Dynamic balance
3. Large carrying capacity
4. Long life components
5. Easy to automate
6. Easy to implement overload protection
7. Easy to implement standardization, serialization and generalization
8. Small size, light weight and compact structure.



**Key Model and Specification:**

Sl	Pump Section						Hydraulic Motor Section		
	Model	Outlet Size (mm)	Flow (m <sup>3</sup> /hr)	Head (m)	Power (kw)	Solids Passage Size (mm)	Displacement (ML)	Pressure (MPa)	Flow (m <sup>3</sup> /hr)
1.	<b>SKYFLOW</b> 150-ODR 180-30	150	220	42	90	30	50	25	75



**SKYFLOW- DREDGE PUMP**